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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/554,027

10/21/2005

Mikael Nordenfelt

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EXAMINER

LUU, THANH X

ART UNIT

PAPER NUMBER

2878

MAIL DATE

DELIVERY MODE

05/15/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/554,027	<b>Applicant(s)</b> NORDENFELT ET AL.	
	<b>Examiner</b> Thanh X. Luu	<b>Art Unit</b> 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 11 April 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 11-18 and 21-27 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 21-27 is/are allowed.
- 6) ☒ Claim(s) 1-8 and 11-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### DETAILED ACTION

This Office Action is in response to amendments and remarks filed April 11, 2008.

Claims 1-8, 11-18 and 21-27 are currently pending.

Examiner notes that the reference (JP 2000-234941) was not considered because Applicant did not submit the original Japanese reference, but rather a translation of that reference.

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 7, 8, 11-13, 16 and 17, as understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Blake (U.S. Patent 3,549,897).

3. Regarding claims 1-3, 7, 8, 11-13, 16 and 17, Blake discloses (see Figs.) an absolute position rotary encoding apparatus comprising: a disk (23) having a first code track and a second code track formed on said disk; a light source (71) for illuminating said code tracks; a first area array sensor (see Fig. 5), comprising a pixel matrix having a plurality of rows, configured to receive the light illuminating said code tracks for forming an imaged pattern of a portion of said first and second code tracks simultaneously. Since the same structure is disclosed, the apparatus is capable of functioning as claimed.

4. Claims 1-4, 6, 12, 13 and 15, as understood, are rejected under 35 U.S.C. 102(e) as

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being anticipated by Leviton (U.S. Patent 7,060,968).

5. Regarding claims 1-4, 6, 12, 13 and 15, Leviton discloses (see Figs. 8a-b) an absolute position rotary encoding apparatus comprising: a disk (705) having a first code track and a second code track (see Fig. 8b) formed on said disk; a light source (not shown) for illuminating said code tracks; a first area array sensor (717), comprising a pixel matrix having a plurality of rows, configured to receive the light illuminating said code tracks for forming an imaged pattern of a portion of said first and second code tracks simultaneously. Since the same structure is disclosed, the apparatus is capable of functioning as claimed.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claim 18 is rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Blake or Leviton in view of Lau et al. (U.S. Patent 4,714,339).

8. Regarding claim 18, Blake and Leviton discloses the claimed invention as set forth above. Blake and Leviton inherently has a processor. Blake and Leviton do not disclose an automatic tracking servo-mechanism. Lau et al. teach (see abstract) an encoder in a device having an automatic tracking servo-mechanism. It would have been obvious to one of ordinary skill in the art at the time the invention was made provide the encoder of Blake or Leviton in the apparatus of Lau et al. having the automatic tracking servo-mechanism to provide more accurate encoding and tracking.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Leviton.

10. Regarding claim 14, Leviton discloses the claimed invention as set forth above. Leviton

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does not specifically disclose an ILT CCD as claimed. However, ILT CCDs are well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use ILT CCDs in the apparatus of Leviton to reduce the cost of the device or to more rapidly image as known.

11. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Blake or Leviton.

12. Regarding claim 5, Blake and Leviton discloses the claimed invention as set forth above. Blake and Leviton do not specifically disclose using reflection as claimed. However, reflective and transmissive encoders are well known. It would have been obvious to one of ordinary skill in the art at the time the invention was made to use reflection the apparatus of Blake or Leviton obtain a more compact configuration as known.

#### ***Allowable Subject Matter***

13. Claims 21-27 are allowed over the prior art of record.

#### ***Response to Arguments***

14. Applicant's arguments filed April 11, 2008 have been fully considered but they are not persuasive.

15. In stating the inherent nature of the function, Examiner means that since the structure of the claim is disclosed, the function (having no patentable weight) can be carried out by the device. Based on Applicant's amendment, Examiner has removed the term inherent to clarify the issue. MPEP sect. 2114 states that an apparatus must be structurally distinguishable from the prior art. Therefore, Applicant's assertions are not persuasive.

#### ***Conclusion***

16. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant

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is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh X. Luu whose telephone number is 571-272-2441. The examiner can normally be reached on M-F 6:00AM-3:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Georgia Epps can be reached on 571-272-2328. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/Thanh X Luu/

Primary Examiner, Art Unit 2878